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NOTICE OF ALLOWANCE AND FEE(S) DUE

2352 7590 07/02/2009

OSTROLENK FABER GERB & SOFFEN
1180 AVENUE OF THE AMERICAS
NEW YORK, NY 100368403

EXAMINER

GOON, SCARLETT Y

ART UNIT

PAPER NUMBER

1623

DATE MAILED: 07/02/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,567

06/19/2006

Jean-Marie Beau

P/3610-67

8886

TITLE OF INVENTION: SYNTHETIC COMPOUNDS USEFUL AS NODULATION AGENTS OF LEGUMINOUS PLANTS AND PREPARATION PROCESSES THEREOF

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	10/02/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

2352 7590 07/02/2009
OSTROLENK FABER GERB & SOFFEN
1180 AVENUE OF THE AMERICAS
NEW YORK, NY 100368403

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,567 06/19/2006 Jean-Marie Beau P/3610-67 8886

TITLE OF INVENTION: SYNTHETIC COMPOUNDS USEFUL AS NODULATION AGENTS OF LEGUMINOUS PLANTS AND PREPARATION PROCESSES THEREOF

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	10/02/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
GOON, SCARLETT Y	1623	536-020000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,567	06/19/2006	Jean-Marie Beau	P/3610-67	8886
2352	7590	07/02/2009	EXAMINER	
OSTROLENK FABER GERB & SOFFEN 1180 AVENUE OF THE AMERICAS NEW YORK, NY 100368403			GOON, SCARLETT Y	
			ART UNIT	PAPER NUMBER
			1623	
DATE MAILED: 07/02/2009				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 295 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 295 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	10/583,567	BEAU ET AL.	
	Examiner	Art Unit	
	SCARLETT GOON	1623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4 March 2009.
2. ☒ The allowed claim(s) is/are 1-33,35,36,39-51,53 and 54.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date <u>5 May 2009</u> 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____. |
|--|---|

/SCARLETT GOON/
Examiner, Art Unit 1623

/Shaojia Anna Jiang/
Supervisory Patent Examiner, Art Unit 1623

EXAMINER'S AMENDMENT

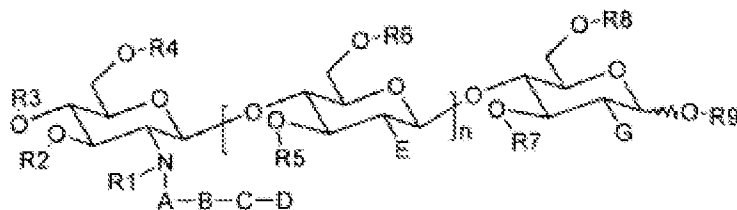
An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

On 16 June 2009, a proposed amendment in condition for allowance was discussed with Mr. Paul Grandinetti, applicants' attorney, in a telephone interview. Authorization for this examiner's amendment was given in a telephone interview with Mr. Paul Grandinetti on 16 June 2009.

The claims have been amended as follows:

- Claims 1, 7, 13-18, 29-33, 35, 36 and 48-51 have been amended as listed below.
- Claims 34, 37 and 38 are canceled as listed below.
- Claims 53 and 54 are newly added as listed below.
- Just a note: for those claims that are not changed and nor amended, see the amendment filed March 4, 2009.

1. (Currently Amended) A compound of formula (I)



in which

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n represents 1, 2 or 3;

A represents a substituent selected from the group consisting of -C(O)-, -C(S)-, and -CH₂-;

B is selected from the group consisting of an arylene[[:]] and a naphthylene, these groups optionally being substituted with one or two substituents independently selected from the group consisting of halogen, CN, C(O)OR¹⁴, C(O)NR¹⁵R¹⁶, CF₃, OCF₃, -NO₂, N₃, OR¹⁴, SR¹⁴, NR¹⁵R¹⁶ and C₁₋₆-alkyl, wherein R¹⁴, R¹⁵, and R¹⁶ are independently selected from the group consisting of H, C₁₋₆-alkyl, C(O)C₁₋₆-alkyl, -C(S)C₁₋₆-alkyl, -C(O)OC₁₋₆-alkyl, -C(O)NH₂, -C(S)NH₂, -C(NH)NH₂, -C(O)NHC₁₋₆-alkyl, -C(S)NHC₁₋₆-alkyl and -C(NH)NHC₁₋₆-alkyl;

C represents a substituent selected from the group consisting of -O-, -S-, -CH₂-, and CH-(C₁-C₆alkyl);

D represents a linear or branched, saturated or unsaturated hydrocarbon-based chain containing from 2 to 20 carbon atoms;

E and G represent, independently of each other, a substituent selected from the group consisting of H, OH, OC(O)CH₃ and NHC(O)CH₃;

R¹ represents a substituent selected from the group consisting of H, C₁₋₆-alkyl, C(O)H and C(O)CH₃;

R², R³, and R⁶[[:]] represent, independently of each other, a substituent selected from the group consisting of H, C₁₋₆-alkyl, C(O)C₁₋₆-alkyl, -C(S)C₁₋₆-alkyl, -C(O)OC₁₋₆-alkyl, -C(O)NH₂, -C(S)NH₂, -C(NH)NH₂, -C(O)NHC₁₋₆-alkyl, -C(S)NHC₁₋₆-alkyl and -C(NH)NHC₁₋₆-alkyl;

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R^4 represents a substituent selected from the group consisting of H, C_{1-6} -alkyl and R^{21} ;

R^5 represents a substituent selected from the group consisting of H, C_{1-6} -alkyl, fucosyl and R^{22} ;

R^7 represents a substituent selected from the group consisting of H, C_{1-6} -alkyl, arabinosyl and R^{23} ;

R^8 represents a substituent selected from the group consisting of H, C_{1-6} -alkyl, fucosyl, methylfucosyl, sulfofucosyl, acetylfucosyl, arabinosyl, SO_3H , SO_3Li , SO_3Na , SO_3K , $SO_3N(C_{1-8}alkyl)_4$ and R^{24} ;

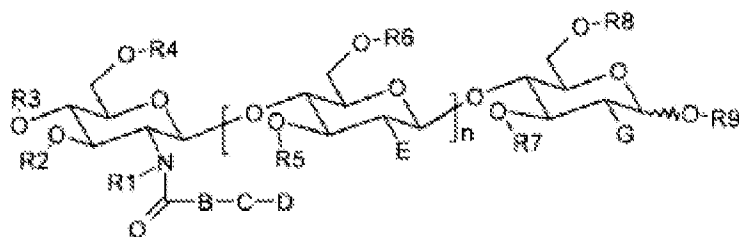
R^9 represents a substituent selected from the group consisting of H, C_{1-6} -alkyl, mannose, glycerol and R^{25} ;

R^{21} , R^{22} , R^{23} , R^{24} and R^{25} represent, independently of each other, a substituent selected from the group consisting of $C(O)C_{1-6}$ -alkyl, $-C(S)C_{1-6}$ -alkyl, $-C(O)OC_{1-6}$ -alkyl, $-C(O)NH_2$, $-C(S)NH_2$, $-C(NH)NH_2$, $-C(O)NHC_{1-6}$ -alkyl, $-C(S)NHC_{1-6}$ -alkyl and $-C(NH)NHC_{1-6}$ -alkyl;

and also the possible geometrical and/or optical isomers, enantiomers and/or diastereoisomers, tautomers, salts, N-oxides, sulfoxides, sulfones, and metal or metalloid complexes thereof that are agriculturally acceptable.

7. (Currently Amended) The compound as claimed in claim 1 and of formula (Ia)

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(Ia)

in which

n represents 1, 2 or 3,

B is selected from the group consisting of

an arylene

and a naphthylene;

C represents a substituent selected from the group consisting of $-O-$, $-S-$, $-CH_2-$, and $CH-(C_1-C_6\text{alkyl})$;

D represents a linear or branched, saturated or unsaturated hydrocarbon-based chain containing from 2 to 20 carbon atoms;

E and G represent, independently of each other, a substituent selected from the group consisting of H , OH , $OC(O)CH_3$ and $NHC(O)CH_3$;

R^1 represents a substituent selected from the group consisting of H , $C_{1-6}\text{-alkyl}$, $C(O)H$, and $C(O)CH_3$;

R^2 , R^3 , and R^6 represent, independently of each other, a substituent selected from the group consisting of H , $C_{1-6}\text{-alkyl}$, $C(O)C_{1-6}\text{-alkyl}$, $-C(S)C_{1-6}\text{-alkyl}$, $-C(O)OC_{1-6}\text{-alkyl}$, $-C(O)NH_2$, $-C(S)NH_2$, $-C(NH)NH_2$, $-C(O)NHC_{1-6}\text{-alkyl}$, $-C(S)NHC_{1-6}\text{-alkyl}$ and $-C(NH)NHC_{1-6}\text{-alkyl}$;

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R^4 represents a substituent selected from the group consisting of H, C_{1-6} -alkyl and R^{21} ;

R^5 represents a substituent selected from the group consisting of H, C_{1-6} -alkyl, fucosyl and R^{22} ;

R^7 represents a substituent selected from the group consisting of H, C_{1-6} -alkyl, arabinosyl and R^{23} ;

R^8 represents a substituent selected from the group consisting of H, C_{1-6} -alkyl, fucosyl, methylfucosyl, sulfofucosyl, acetylfucosyl, arabinosyl, SO_3H , SO_3Li , SO_3Na , SO_3K , $SO_3N(C_{1-8}alkyl)_4$ and R^{24} ;

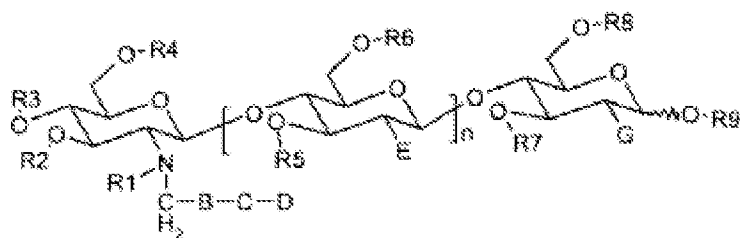
R^9 represents a substituent ~~chosen~~ selected from the group consisting of H, C_{1-6} -alkyl, mannose, glycerol and R^{25} ;

R^{21} , R^{22} , R^{23} , R^{24} and R^{25} represent, independently of each other, a substituent selected from the group consisting of $C(O)C_{1-6}$ -alkyl, $-C(S)C_{1-6}$ -alkyl, $-C(O)OC_{1-6}$ -alkyl, $-C(O)NH_2$, $-C(S)NH_2$, $-C(NH)NH_2$, $-C(O)NHC_{1-6}$ -alkyl, $-C(S)NHC_{1-6}$ -alkyl and $-C(NH)NHC_{1-6}$ -alkyl;

and also the possible geometrical and/or optical isomers, enantiomers and/or diastereoisomers, tautomers, salts, N-oxides, sulfoxides, sulfones, and metal or metalloid complexes thereof.

13. (Currently Amended) The compound as claimed in claim 1 and of formula (Ib)

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(Ib)

in which

n represents 1, 2 or 3,

B represents is selected from the group consisting of

an arylene; and

~~a heteroarylene comprising 1 or 2 hetero atoms chosen from nitrogen, oxygen and sulfur;~~

a naphthylene;

~~a heteronaphthylene comprising 1 or 2 hetero atoms chosen from nitrogen, oxygen and sulfur;~~

~~a divalent radical derived from 2 fused aromatic rings containing 5 or 6 atoms each;~~

~~a divalent radical derived from 2 fused aromatic or heteroaromatic rings containing 5 or 6 atoms each and comprising 1 or 2 hetero atoms chosen from nitrogen, oxygen and sulfur;~~

a biphenylene; or a

~~heterobiphenylene comprising 1 or 2 hetero atoms chosen from nitrogen, oxygen and sulfur;~~

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~~these groups possibly being substituted with one or two substituents R^{12} and R^{13} chosen, independently of each other, from halogen, CN , $C(O)OR^{14}$, $C(O)NR^{15}R^{16}$, CF_3 , OCF_3 , NO_2 , N_3 , OR^{14} , SR^{14} , $NR^{15}R^{16}$ and C_{4-6} -alkyl;~~

C represents a substituent ~~chosen~~ selected from the group consisting of -O-, -S-, -CH₂-, ~~$-CHR^{17}$, $CR^{17}R^{18}$, NH or NR^{19}~~ and $CH-(C_1-C_6 \text{ alkyl})$;

D represents a linear or branched, saturated or unsaturated hydrocarbon-based chain containing from 2 to 20 carbon atoms;

E and G represent, independently of each other, a substituent ~~chosen~~ selected from the group consisting of H, OH, ~~OR^{20} , NH_2 , NHR^{20}~~ $OCO(CH_3)$ and $NHC(O)CH_3$;

R^1 represents a substituent ~~chosen~~ selected from the group consisting of H, C_{1-6} -alkyl, $C(O)H$, and $C(O)CH_3$;

R^2 , R^3 , and R^6 represent, independently of each other, a substituent ~~chosen~~ selected from the group consisting of H, C_{1-6} -alkyl, $C(O)C_{1-6}$ -alkyl, $-C(S)C_{1-6}$ -alkyl, $-C(O)OC_{1-6}$ -alkyl, $-C(O)NH_2$, $-C(S)NH_2$, $-C(NH)NH_2$, $-C(O)NHC_{1-6}$ -alkyl, $-C(S)NHC_{1-6}$ -alkyl ~~or~~ and $-C(NH)NHC_{1-6}$ -alkyl;

R^4 represents a substituent ~~chosen~~ selected from the group consisting of H, C_{1-6} -alkyl ~~or~~ and R^{21} ;

R^5 represents a substituent ~~chosen~~ selected from the group consisting of H, C_{1-6} -alkyl, fucosyl ~~or~~ and R^{22} ;

R^7 represents a substituent ~~chosen~~ selected from the group consisting of H, C_{1-6} -alkyl, arabinosyl ~~or~~ and R^{23} ;

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R^8 represents a substituent ~~chosen~~ selected from the group consisting of H, C_{1-6} -alkyl, fucosyl, methylfucosyl, sulfofucosyl, acetylfucosyl, arabinosyl, SO_3H , SO_3Li , SO_3Na , SO_3K , $SO_3N(C_{1-8}alkyl)_4$ ~~or~~ and R^{24} ;

R^9 represents a substituent ~~chosen~~ selected from the group consisting of H, C_{1-6} -alkyl, mannose, glycerol ~~or~~ and R^{25} ;

~~R^{10} , R^{11} , R^{17} and R^{18} represent, independently of each other, a substituent chosen from C_{4-6} -alkyl or F;~~

R^{14} , R^{15} , R^{16} and R^{19} represent, independently of each other, a substituent ~~chosen~~ selected from the group consisting of H , ~~or~~ C_{1-6} -alkyl, $-C(O)C_{1-6}$ -alkyl, $-C(S)C_{1-6}$ -alkyl, $-C(O)OC_{1-6}$ -alkyl, $-C(O)NH_2$, $-C(S)NH_2$, $-C(NH)NH_2$, $-C(O)NHC_{1-6}$ -alkyl, $-C(S)NHC_{1-6}$ -alkyl ~~or~~ and $-C(NH)NHC_{1-6}$ -alkyl;

~~R^{20} , R^{21} , R^{22} , R^{23} , R^{24} and R^{25} represent, independently of each other, a substituent chosen~~ selected from the group consisting of $C(O)C_{1-6}$ -alkyl, $-C(S)C_{1-6}$ -alkyl, $-C(O)OC_{1-6}$ -alkyl, $-C(O)NH_2$, $-C(S)NH_2$, $-C(NH)NH_2$, $-C(O)NHC_{1-6}$ -alkyl, $-C(S)NHC_{1-6}$ -alkyl ~~or~~ and $-C(NH)NHC_{1-6}$ -alkyl;

and also the possible geometrical and/or optical isomers, enantiomers and/or diastereoisomers, tautomers, salts, N-oxides, sulfoxides, sulfones, and metal or metalloid complexes thereof, ~~which~~ that are agriculturally acceptable. ~~Among the compounds defined above, the most important compounds are the salts, more particularly the lithium, sodium, potassium or tetraalkylammonium salts.~~

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14. (Currently Amended) The compound of formula (Ib) ~~as claimed in~~ of claim 13, having at least one ~~or other~~ of the following characteristics, ~~taken separately or in combination:~~

n represents 2 or 3;

B represents a phenylene;

C represents -O-;

D represents a linear, saturated or unsaturated hydrocarbon-based chain containing from 3 to 17 carbon atoms;

E and G represent NHC(O)CH_3 ;

R^1 ~~represents~~ is selected from the group consisting of H or and C(O)CH_3 ;

R^2 , R^3 , R^5 , R^6 , R^7 and R^9 represent H;

R^4 ~~represents~~ is selected from the group consisting of H, C(O)CH_3 or and C(O)NH_2 ;

R^8 ~~represents~~ is selected from the group consisting of H, SO_3H , SO_3Li , SO_3Na , SO_3K , $\text{SO}_3\text{N}(\text{C}_{1-8}\text{alkyl})_4$, fucosyl or and methylfucosyl.

15. (Currently Amended) The compound of formula (Ib) ~~as claimed in~~ of claim 13, ~~simultaneously having the following characteristics~~ wherein:

n represents 2 or 3;

E and G represent NHC(O)CH_3 ;

R^1 ~~represents~~ is selected from the group consisting of H or and C(O)CH_3 ;

R^2 , R^3 , R^5 , R^6 , R^7 and R^9 represent H;

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R^4 ~~represents~~ is selected from the group consisting of H, C(O)CH₃ or and
C(O)NH₂;

R^8 ~~represents~~ is selected from the group consisting of H, SO₃H, SO₃Li, SO₃Na,
SO₃K, SO₃N(C₁₋₈alkyl)₄, fucosyl or and methylfucosyl.

16. (Currently Amended) The compound of formula (Ib) ~~as claimed in~~ of claim
13, ~~simultaneously having the following characteristics~~ wherein:

n represents 2 or 3;

D represents a linear, saturated or unsaturated hydrocarbon-based chain
containing from 3 to 17 carbon atoms;

E and G represent NHC(O)CH₃;

R^1 ~~represents~~ is selected from the group consisting of H or and C(O)CH₃;

R^2 , R^3 , R^5 , R^6 , R^7 and R^9 represent H;

R^4 ~~represents~~ is selected from the group consisting of H, C(O)CH₃ or and
C(O)NH₂;

R^8 ~~represents~~ is selected from the group consisting of H, SO₃H, SO₃Li, SO₃Na,
SO₃K, SO₃N(C₁₋₈alkyl)₄, fucosyl or and methylfucosyl.

17. (Currently Amended) The compound of formula (Ib) ~~as claimed in~~ of claim
13, ~~simultaneously having the following characteristics~~ wherein:

n represents 2 or 3;

C represents -O-;

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D represents a linear, saturated or unsaturated hydrocarbon-based chain containing from 3 to 17 carbon atoms;

E and G represent NHC(O)CH_3 ;

R^1 ~~represents~~ is selected from the group consisting of H or and C(O)CH_3 ;

R^2 , R^3 , R^5 , R^6 , R^7 and R^9 represent H;

R^4 ~~represents~~ is selected from the group consisting of H, C(O)CH_3 or and C(O)NH_2 ;

R^8 ~~represents~~ is selected from the group consisting of H, SO_3H , SO_3Li , SO_3Na , SO_3K , $\text{SO}_3\text{N}(\text{C}_{1-8}\text{alkyl})_4$, fucosyl or and methylfucosyl.

18. (Currently Amended) The compound of formula (Ib) ~~as claimed in~~ of claim 13, simultaneously having the following characteristics wherein:

n represents 2 or 3;

B represents a phenylene;

C represents -O-;

D represents a linear hydrocarbon-based chain containing 11 carbons, which is saturated, or unsaturated between carbons 4 and 5;

E and G represent NHC(O)CH_3 ;

R^1 ~~represents~~ is selected from the group consisting of H or and C(O)CH_3 ;

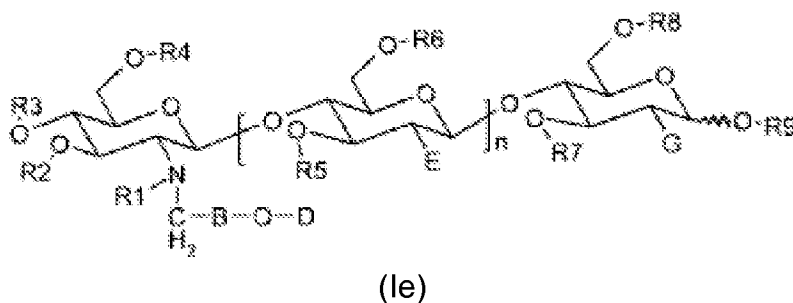
R^2 , R^3 , R^5 , R^6 , R^7 and R^9 represent H;

R^4 ~~represents~~ is selected from the group consisting of H, C(O)CH_3 or and C(O)NH_2 ;

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R^8 ~~represents~~ is selected from the group consisting of H, SO_3H , SO_3Li , SO_3Na , SO_3K , $\text{SO}_3\text{N}(\text{C}_{1-8}\text{alkyl})_4$, fucosyl ~~or~~ and methylfucosyl.

29. (Currently Amended) The compound ~~as claimed in~~ of claim 1 and of formula (Ie)



in which

n represents 1, 2 or 3;

B ~~represents~~ is selected from the group consisting of

an arylene; and

a heteroarylene comprising ~~1 or 2 hetero atoms chosen from nitrogen, oxygen and sulfur;~~

a naphthylene;

a heteronaphthylene comprising ~~1 or 2 hetero atoms chosen from nitrogen, oxygen and sulfur;~~

a ~~divalent radical derived from 2 fused aromatic rings containing 5 or 6 atoms each;~~

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~~a divalent radical derived from 2 fused aromatic or heteroaromatic rings containing 5 or 6 atoms each and comprising 1 or 2 hetero atoms chosen from nitrogen, oxygen and sulfur;~~

~~a biphenylene; or a~~

~~heterobiphenylene comprising 1 or 2 hetero atoms chosen from nitrogen, oxygen and sulfur;~~

~~these groups possibly being substituted with one or two substituents R^{12} and R^{13} chosen, independently of each other, from halogen, CN , $C(O)OR^{14}$, $C(O)NR^{15}R^{16}$, CF_3 , OCF_3 , NO_2 , N_3 , OR^{14} , SR^{14} , $NR^{15}R^{16}$ and C_{4-6} -alkyl;~~

D represents a linear or branched, saturated or unsaturated hydrocarbon-based chain containing from 2 to 20 carbon atoms;

E and G represent, independently of each other, a substituent ~~chosen~~ selected from the group consisting of H, OH, OR^{20} , NH_2 , NHR^{20} , $OC(O)CH_3$ and $NHC(O)CH_3$;

R^1 represents a substituent ~~chosen~~ selected from the group consisting of H, C_{1-6} -alkyl, $C(O)H$, and $C(O)CH_3$;

R^2 , R^3 , and R^6 represent, independently of each other, a substituent ~~chosen~~ selected from the group consisting of H, C_{1-6} -alkyl, $C(O)C_{1-6}$ -alkyl, $-C(S)C_{1-6}$ -alkyl, $-C(O)OC_{1-6}$ -alkyl, $-C(O)NH_2$, $-C(S)NH_2$, $-C(NH)NH_2$, $-C(O)NHC_{1-6}$ -alkyl, $-C(S)NHC_{1-6}$ -alkyl ~~or~~ and $-C(NH)NHC_{1-6}$ -alkyl;

R^4 represents a substituent ~~chosen~~ selected from the group consisting of H, C_{1-6} -alkyl ~~or~~ and R^{21} ;

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R^5 represents a substituent ~~chosen~~ selected from the group consisting of H, C₁₋₆-alkyl, fucosyl ~~or~~ and R^{22} ;

R^7 represents a substituent ~~chosen~~ selected from the group consisting of H, C₁₋₆-alkyl, arabinosyl ~~or~~ and R^{23} ;

R^8 represents a substituent ~~chosen~~ selected from the group consisting of H, C₁₋₆-alkyl, fucosyl, methylfucosyl, sulfofucosyl, acetylfucosyl, arabinosyl, SO₃H, SO₃Li, SO₃Na, SO₃K, SO₃N(C₁₋₈alkyl)₄ ~~or~~ and R^{24} ;

R^9 represents a substituent ~~chosen~~ selected from the group consisting of H, C₁₋₆-alkyl, mannose, glycerol ~~or~~ and R^{25} ;

~~R^{10} , R^{14} , R^{17} and R^{18} represent, independently of each other, a substituent chosen from C₄₋₆-alkyl or F;~~

R^{14} , R^{15} , R^{16} and R^{19} represent, independently of each other, a substituent ~~chosen~~ selected from the group consisting of H, ~~or~~ C₁₋₆-alkyl, -C(O)C₁₋₆-alkyl, -C(S)C₁₋₆-alkyl, -C(O)OC₁₋₆-alkyl, -C(O)NH₂, -C(S)NH₂, -C(NH)NH₂, -C(O)NHC₁₋₆-alkyl, -C(S)NHC₁₋₆-alkyl ~~or~~ and -C(NH)NHC₁₋₆-alkyl;

R^{20} , R^{21} , R^{22} , R^{23} , R^{24} and R^{25} represent, independently of each other, a substituent ~~chosen~~ selected from the group consisting of C(O)C₁₋₆-alkyl, -C(S)C₁₋₆-alkyl, -C(O)OC₁₋₆-alkyl, -C(O)NH₂, -C(S)NH₂, -C(NH)NH₂, -C(O)NHC₁₋₆-alkyl, -C(S)NHC₁₋₆-alkyl ~~or~~ and -C(NH)NHC₁₋₆-alkyl;

and also the possible geometrical and/or optical isomers, enantiomers and/or diastereoisomers, tautomers, salts, N-oxides, sulfoxides, sulfones, and metal or metalloid complexes thereof, ~~which~~ that are agriculturally acceptable. ~~Among the~~

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~~compounds defined above, the most important compounds are the salts, more particularly the lithium, sodium, potassium or tetraalkylammonium salts.~~

30. (Currently Amended) The compound of formula (Ie) ~~as claimed in~~ of claim 29, having at least one ~~or other~~ of the following characteristics, ~~taken separately or in combination:~~

n represents 2 or 3;

B represents a phenylene;

D represents a linear, saturated or unsaturated hydrocarbon-based chain containing from 3 to 17 carbon atoms;

E and G represent NHC(O)CH_3 ;

R^1 ~~represents~~ is selected the group consisting of H or and C(O)CH_3 ;

R^2 , R^3 , R^5 , R^6 , R^7 and R^9 represent H;

R^4 ~~represents~~ is selected the group consisting of H, C(O)CH_3 or and C(O)NH_2 ;

R^8 ~~represents~~ is selected the group consisting of H, SO_3H , SO_3Li , SO_3Na , SO_3K , $\text{SO}_3\text{N}(\text{C}_{1-8}\text{alkyl})_4$, fucosyl or and methylfucosyl.

31. (Currently Amended) The compound of formula (Ie) ~~as claimed in~~ of claim 29, ~~simultaneously having the following characteristics~~ wherein:

n represents 2 or 3;

E and G represent NHC(O)CH_3 ;

R^1 ~~represents~~ is selected the group consisting of H or and C(O)CH_3 ;

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R^2 , R^3 , R^5 , R^6 , R^7 and R^9 represent H;

R^4 ~~represents~~ is selected the group consisting of H, $C(O)CH_3$ ~~or~~ and $C(O)NH_2$;

R^8 ~~represents~~ is selected the group consisting of H, SO_3H , SO_3Li , SO_3Na , SO_3K , $SO_3N(C_{1-8}alkyl)_4$, fucosyl ~~or~~ and methylfucosyl.

32. (Currently Amended) The compound of formula (Ie) ~~as claimed in~~ of claim 29, ~~simultaneously having the following characteristics~~ wherein:

n represents 2 or 3;

D represents a linear, saturated or unsaturated hydrocarbon-based chain containing from 3 to 17 carbon atoms;

E and G represent $NHC(O)CH_3$;

R^1 ~~represents~~ is selected the group consisting of H ~~or~~ and $C(O)CH_3$;

R^2 , R^3 , R^5 , R^6 , R^7 and R^9 represent H;

R^4 ~~represents~~ is selected the group consisting of H, $C(O)CH_3$ ~~or~~ and $C(O)NH_2$;

R^8 ~~represents~~ is selected the group consisting of H, SO_3H , SO_3Li , SO_3Na , SO_3K , $SO_3N(C_{1-8}alkyl)_4$, fucosyl ~~or~~ and methylfucosyl.

33. (Currently Amended) The compound of formula (Ie) ~~as claimed in~~ of claim 29, ~~simultaneously having the following characteristics~~ wherein:

n represents 2 or 3;

B represents a phenylene;

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D represents a linear hydrocarbon-based chain containing 11 carbons, which is saturated, or unsaturated between carbons 4 and 5;

E and G represent NHC(O)CH_3 ;

~~R¹ represents~~ is selected the group consisting of H ~~or~~ and C(O)CH_3 ;

R^2 , R^3 , R^5 , R^6 , R^7 and R^9 represent H;

~~R⁴ represents~~ is selected the group consisting of H, C(O)CH_3 ~~or~~ and C(O)NH_2 ;

~~R⁸ represents~~ is selected the group consisting of H, SO_3H , SO_3Li , SO_3Na , SO_3K , $\text{SO}_3\text{N}(\text{C}_{1-8}\text{alkyl})_4$, fucosyl ~~or~~ and methylfucosyl.

34. (Canceled)

35. (Currently Amended) The compound of claim 1 wherein B represents an arylene optionally ~~being~~ substituted with one or two substituents independently selected from the group consisting of halogen, CN, C(O)OR^{14} , $\text{C(O)NR}^{15}\text{R}^{16}$, CF_3 , OCF_3 , $-\text{NO}_2$, N_3 , OR^{14} , SR^{14} , $\text{NR}^{15}\text{R}^{16}$ and $\text{C}_{1-6}\text{-alkyl}$, wherein R^{14} , R^{15} , and R^{16} are independently selected from the group consisting of H, $\text{C}_{1-6}\text{-alkyl}$, $\text{C(O)C}_{1-6}\text{-alkyl}$, $-\text{C(S)C}_{1-6}\text{-alkyl}$, $-\text{C(O)OC}_{1-6}\text{-alkyl}$, $-\text{C(O)NH}_2$, $-\text{C(S)NH}_2$, $-\text{C(NH)NH}_2$, $-\text{C(O)NHC}_{1-6}\text{-alkyl}$, $-\text{C(S)NHC}_{1-6}\text{-alkyl}$ and $-\text{C(NH)NHC}_{1-6}\text{-alkyl}$.

36. (Currently Amended) The compound of claim 1 wherein B represents a phenylene optionally ~~being~~ substituted with one or two substituents independently selected from the group consisting of halogen, CN, C(O)OR^{14} , $\text{C(O)NR}^{15}\text{R}^{16}$, CF_3 , OCF_3 , $-\text{NO}_2$, N_3 , OR^{14} , SR^{14} , $\text{NR}^{15}\text{R}^{16}$ and $\text{C}_{1-6}\text{-alkyl}$, wherein R^{14} , R^{15} , and R^{16} are

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independently selected from the group consisting of H, C₁₋₆-alkyl, C(O)C₁₋₆-alkyl, -C(S)C₁₋₆-alkyl, -C(O)OC₁₋₆-alkyl, -C(O)NH₂, -C(S)NH₂, -C(NH)NH₂, -C(O)NHC₁₋₆-alkyl, -C(S)NHC₁₋₆-alkyl and -C(NH)NHC₁₋₆-alkyl.

37-38 (Canceled)

48. (Currently Amended) ~~The use of a compound as claimed in claim 1, as a~~
The compound of claim 1 used as a nodulation factor for a plant.

49. (Currently Amended) ~~The use as claimed in~~ nodulation factor of claim 48,
~~characterized in that~~ wherein said plant is a legume.

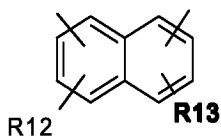
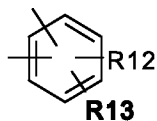
50. (Currently Amended) ~~The use as claimed in~~ nodulation factor of claim 49,
~~characterized in that~~ wherein said legume is soybean, pea, horse bean, groundnut,
bean, lupin, alfalfa or clover.

51. (Currently Amended) ~~The use of a compound as claimed in claim 1, as a~~
The compound of claim 1 used as a plant growth stimulation factor.

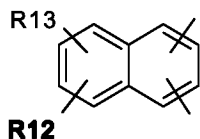
52. (Canceled)

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53. (New) The compound of claim 1 wherein B is selected from the group consisting of:

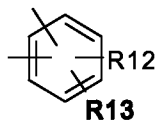


and



wherein R^{12} and R^{13} represent two substituents independently selected from the group consisting of halogen, CN, CF_3 , OCF_3 , $-NO_2$, N_3 , OR^{14} , SR^{14} , $NR^{15}R^{16}$ and C_{1-6} -alkyl.

54. (New) The compound of claim 53 wherein B is



Information Disclosure Statement

The information disclosure statement (IDS) dated 5 May 2009 complies with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. Accordingly, it has been placed in the application file and the information therein has been considered as to the merits.

REASONS FOR ALLOWANCE

Claims 1-33, 35, 36, 39-51, 53 and 54 are pending in the instant application.

In view of the allowability of claims drawn to the elected species, the requirement for a species election, as set forth in the Office Action mailed 18 July 2008, is hereby withdrawn. The search has been extended to include the non-elected species of the instantly claimed invention and the full scope of the claims is found to be allowable.

The following is an examiner's statement of reasons for allowance: The instantly claimed compounds are not seen to be taught or fairly suggested in the prior art, as discussed below.

Applicants' arguments, filed 4 March 2009, with respect to the rejection of claims 1-12, 19-28, 34-36 and 39-46 under 35 USC § 112, first paragraph, for lack of scope of enablement, have been fully considered and are persuasive because the claims have been amended to further limit the scope of the compounds of formula (I). This rejection is withdrawn.

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Applicants' arguments, filed 4 March 2009, with respect to the rejection of claims 1-12, 19-28, 34-36 and 39-47 under 35 USC § 102(a) as being anticipated by Grenouillat *et al.*, have been fully considered and are persuasive because Applicants have perfected their foreign priority claim by submitting an English translation of French application 0315543, as well as a statement certifying the accuracy of the translation. Thus, the Grenouillat *et al.* reference cannot be applied as prior art and the rejection is withdrawn.

The chemical synthesis and full characterization of numerous compounds of the instantly claimed invention are disclosed in the instant Specification. Hence, these compounds are enabled and have sufficient written description in the Specification.

Accordingly, the Examiner's Amendment is sufficient to place the application in condition for allowance.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SCARLETT GOON whose telephone number is 571-

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270-5241. The examiner can normally be reached on Mon - Thu 7:00 am - 4 pm and every other Fri 7:00 am - 12 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shaojia Jiang can be reached on 571-272-0627. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shaojia Anna Jiang/
Supervisory Patent Examiner, Art Unit 1623

SCARLETT GOON
Examiner
Art Unit 1623